



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,517	07/09/2001	Shu Chuen Ho	P / 2778-15	4916

2352 7590 06/28/2004

OSTROLENK FABER GERB & SOFFEN  
1180 AVENUE OF THE AMERICAS  
NEW YORK, NY 100368403

EXAMINER

HEITBRINK, TIMOTHY W

ART UNIT	PAPER NUMBER
----------	--------------

1722

DATE MAILED: 06/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/901,517

Applicant(s)

HO ET AL.

Examiner

Tim Heitbrink

Art Unit

1722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-4, 10 and 11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2, 3, 10 and 11 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

Art Unit: 1722

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear if claims 2 and 3 are pending since the amendment filed with the RCE indicates that claim 1-3 were canceled. Claim 4 depends upon a canceled claim. For examination purposes, the Examiner will assume claims 2-4, 10 and 11 are pending.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 2,3,10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Shimizu et al.

Shimizu et al. disclose a mold assembly for encapsulating a lead frame, the mold comprising two mold halves 25,26, one of the mold halves comprising a removable contact section 13 adapted to contact a surface of a lead frame 5D, 5E. The contact section 13 located in an aperture comprising a compressible material allowing for movement relative to the mold on which it is mounted. See Fig. 9a. Looking at Fig. 9b, one can see where the contact section minimizes seepage of molding material between the mold and the frame.

Claims 2,3,10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Tetreault et al.

Tetreault et al. disclose in Figs. 5 and 7, a mold 10 comprising two mold halves (only one of which is shown), one of the mold halves comprising a removable contact member 26, located in an aperture, which is adapted to contact a surface of a semiconductor chip 46 mounted in the mold. The contact section comprises a compressible material (rubber or silicone) which is profiled to minimize seepage of molding material between the section of the mold and the chip.

Claim 4 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claim 4 defines over the prior art since the prior art fails to disclose or suggest an element operative to bias the removable member into the mold cavity.

Applicant's arguments filed 5-18-04 have been fully considered but they are not persuasive. Applicant does not understand how the number of references used against the claims can be justified in view of MPEP 706.02. The Examiner is unclear which part of MPEP 706.02 applicant is referring to and asks applicant to specifically state the exact section which limits the number of references used against pending claims.

Applicant further argues the prior art discloses the use of cavities and not an aperture, citing Merriam-Webster Dictionary, Online Edition 2004. A review of the definitions provided by applicant reveals the meaning of aperture and cavity have common ground, namely, open or unfilled space. Thus, the use of the term "aperture" reads on a cavity. Simply put, the dictionary definitions do not structurally distinguish the two.

While Shimizu uses a lead frame, the limitation of a chip does not add structure to the apparatus itself, i.e, it is not part of the claimed mold but a product of the mold itself.

Tetreault shows an aperture for reasons given supra.


The Schmid, Baird, Nishihara et al., Peters et al. and Steijer et al. references have been dropped.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tim Heitbrink whose telephone number is 571-272-1132. The examiner can normally be reached on Tuesday-Friday 5:30-4:00.

Art Unit: 1722

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Tim Heitbrink  
Primary Examiner  
Art Unit 1722

6-24-04

twH